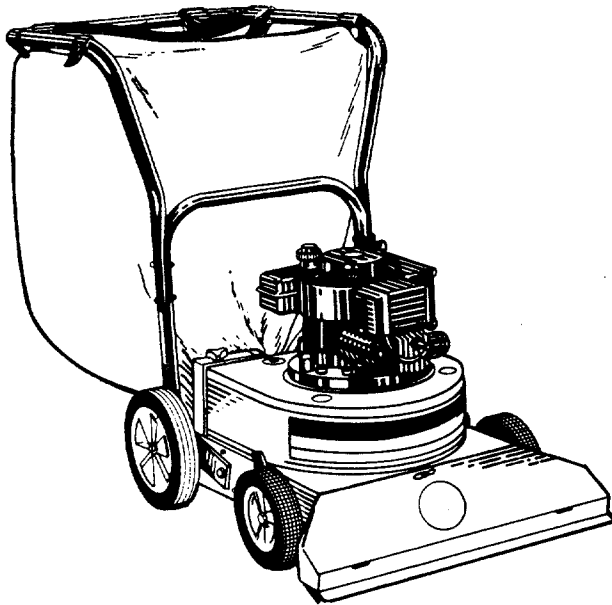


OWNER'S GUIDE

• ASSEMBLY • OPERATION • MAINTENANCE • PARTS •



POWER VACUUMS

Model Numbers
242-660-000
242-662-000
242665

IMPORTANT!

Record the **Model No.** and **Mfg. Code** which appear on your unit in the space below. You **must** have these numbers, along with the date of purchase, in order to receive warranty or service.

MEETS ANSI SAFETY STANDARDS

MODEL NO.

MFG. CODE

Important:
Read Safety Rules
and Instructions Carefully



Made
in
AMERICA

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

IMPORTANT

RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR POWER VACUUM. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL— HEED ITS WARNING.



DANGER:

Your power vacuum was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

1. Read this operating and service instruction manual carefully. Be thoroughly familiar with the controls and proper use of the power vacuum.
2. Never allow children to operate this power vacuum.
3. Keep the area of operation clear of all persons, particularly small children and pets.
4. Check fuel before starting engine. Do not fill fuel tank indoors, when engine is running, or while engine is hot. Wipe off any spilled fuel before starting engine.
5. Do not change engine governor settings.
6. Do not put hands near rotating parts for any reason.
7. If the power vacuum should start to vibrate abnormally stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
8. Before cleaning, repairing or inspecting, make certain all moving parts have come to a complete stop. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting. Also keep throttle control lever in the stop position.
9. If the power vacuum should become blocked with debris at any point, shut engine off and wait until the impeller comes to a complete stop before attempting to remove the obstruction. Disconnect spark plug wire to prevent accidental starting.
10. Check all bolts for tightness at frequent periods.
11. Never store this power vacuum with fuel in the tank. Allow engine to cool before storing in any enclosure.
12. Keep bag and equipment free of debris when not in use.
13. Never operate this power vacuum unless air duct and vacuum bag are properly affixed in their places. Large zippered end of bag must be closed when operating to prevent objects from being blown out.
14. Never empty vacuum bag when engine is running.
15. Never change auxiliary hose attachment when engine is running.
16. The manufacturer recommends that the operator wear safety glasses or some other suitable eye protection when operating this machine.
17. Check the vacuum bag frequently for wear and replace when necessary.
18. Never operate as a leaf blower unless deflector assembly (optional equipment) is properly affixed in its place.
19. Exercise caution whenever operating as a leaf blower. Do not allow discharge to be pointed in the direction of persons.
20. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.

CONTENTS OF HARDWARE PACK

Hardware pack may contain extra items which are not used on your unit. Hardware is shown approximately one-half size. Quantities of parts and part numbers are shown in parentheses.

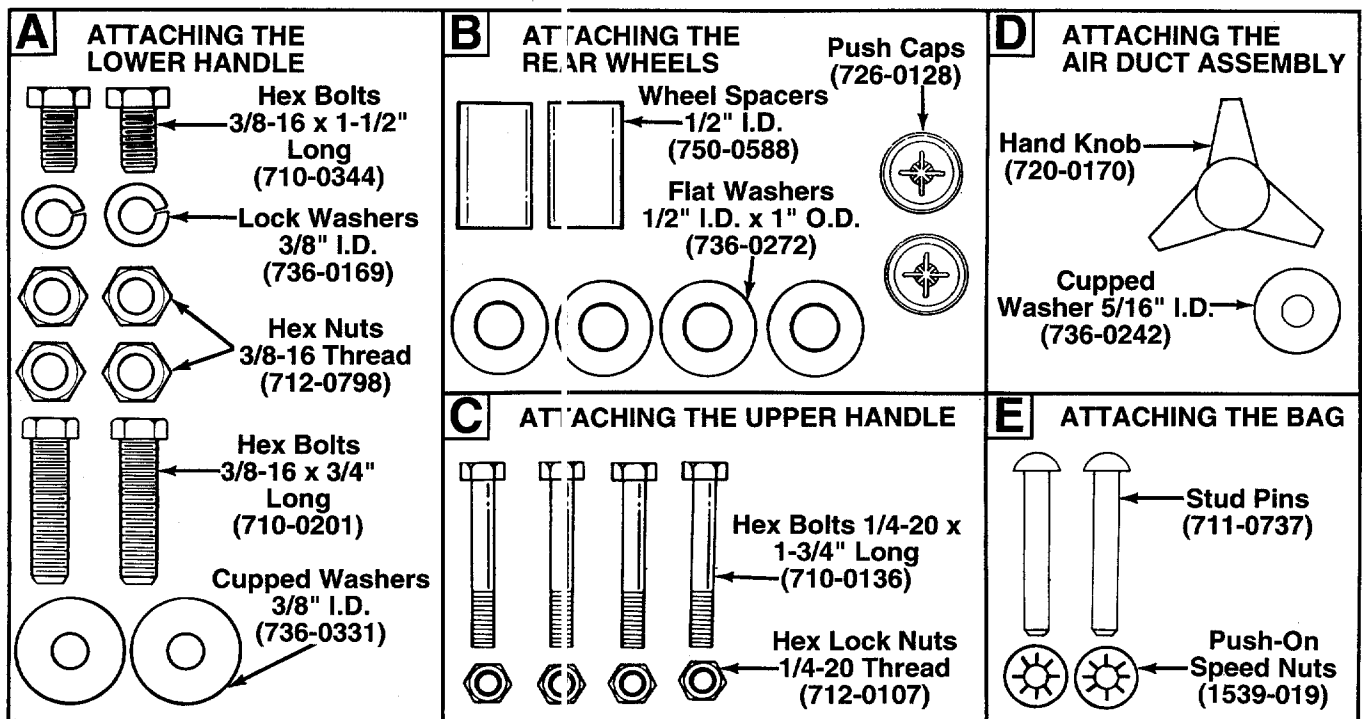
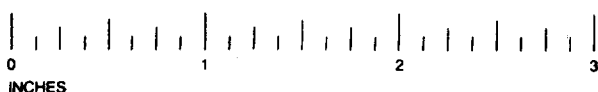


FIGURE 1.



ASSEMBLY INSTRUCTIONS

IMPORTANT: This unit is shipped **WITHOUT GASOLINE** or **OIL**. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

NOTE: Reference to right or left hand side of the vacuum is observed from behind the unit in the operating position.

TOOLS REQUIRED FOR ASSEMBLY

- (2) 9/16" Wrenches
- (2) 7/16" Wrenches
- (1) Hammer or Rubber Mallet

UNPACKING

Remove the vacuum, loose parts, hardware pack and literature from the carton. Make certain all parts and literature have been removed before the carton is discarded.

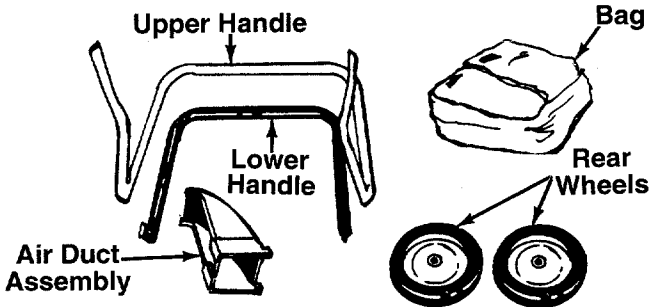


FIGURE 1.

← LOOSE PARTS IN CARTON (See figure 1)

- (1) Upper Handle
- (1) Lower Handle
- (1) Air Duct Assembly
- (2) Rear Wheels
- (1) Bag

ATTACHING THE LOWER HANDLE (Hardware A)

1. Raise the back of the unit off the floor approximately 3 inches and block it so that the lower handle and rear wheels may be assembled.
2. Place lower handle in position on the vacuum, lining up the holes in the handle with the holes on the frame. See figure 2. Place hex bolts 3/4" long through lower hole in handle and frame. Secure with 3/8" lock washers and hex nuts on the inside of frame, finger tight only.
3. Place hex bolts 1-1/2" long through upper hole in handle and frame. Secure with 3/8" cupped washers (cupped side against the frame) and hex nuts.
4. Tighten all four nuts and bolts using two 9/16" wrenches.

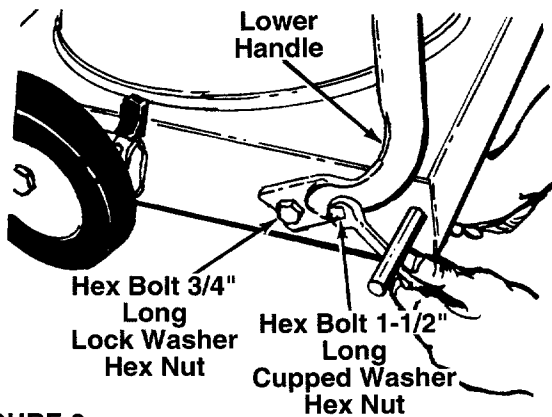


FIGURE 2.

← Place hex bolts 3/4" long through lower hole in handle and frame. Secure with 3/8" lock washers and hex nuts on the inside of frame, finger tight only.

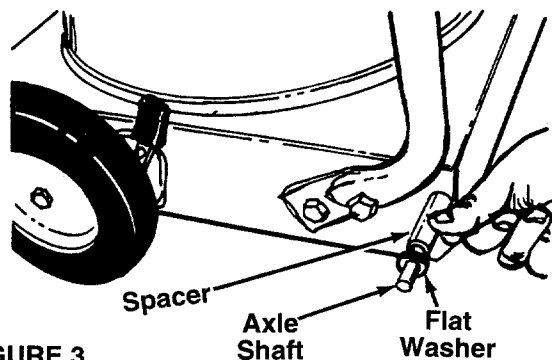


FIGURE 3.

← ATTACHING THE REAR WHEELS (Hardware B)

1. Slide spacers onto the axle shafts. Place one flat washer on each shaft next to the spacers. See figure 3.
2. Place rear wheels in position on the shafts, then another flat washer. Secure with black push cap by placing the push cap in position and tapping on with hammer or rubber mallet. See figure 4.

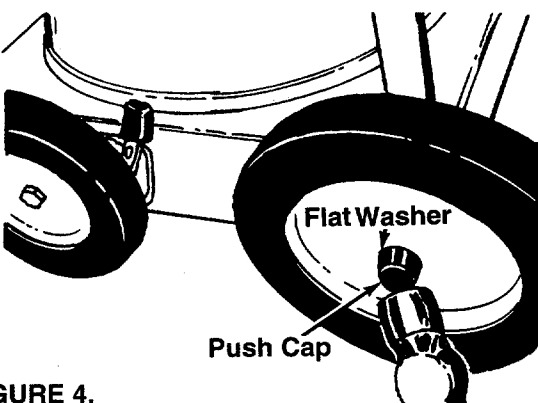


FIGURE 4.

← on with hammer or rubber mallet. See figure 4.

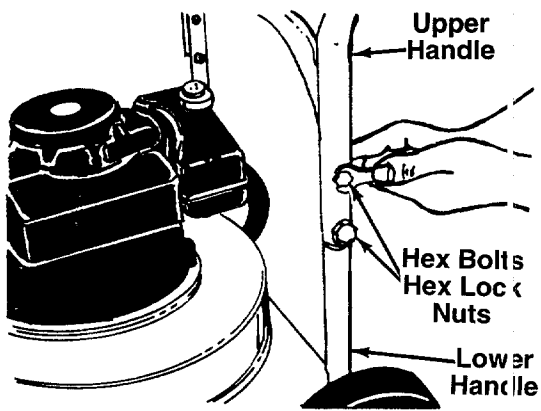


FIGURE 5.

ATTACHING THE UPPER HANDLE (Hardware C)
 Place the upper handle in position over lower handle. Fasten with four hex bolts 1-3/4" long and hex lock nuts. See figure 5. Two 7/16" wrenches are required.

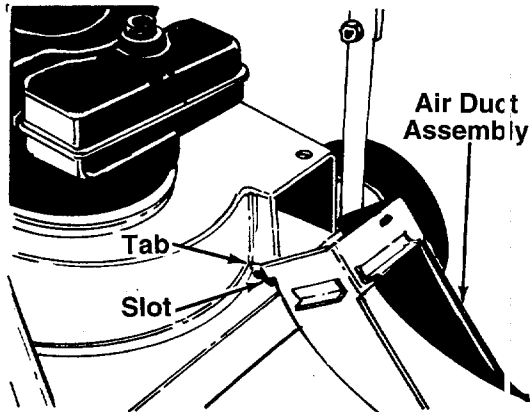


FIGURE 6.

ATTACHING THE AIR DUCT ASSEMBLY (Hardware D)
 1. Place the tabs on the air duct assembly into the slots in the frame as shown in figure 6. Raise the air duct into position.

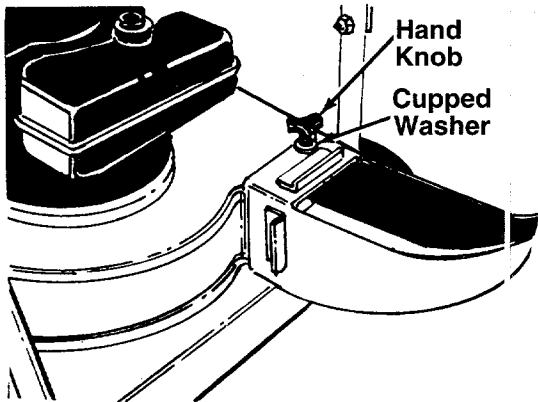


FIGURE 7.

2. Secure air duct with hand knob and cupped washer. Cupped side of washer must be against the air duct. See figure 7.

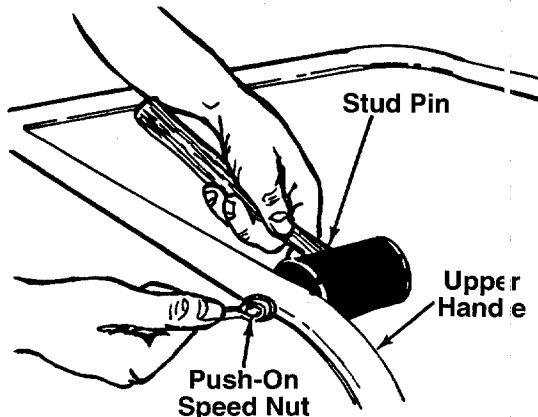


FIGURE 8.

ATTACHING THE BAG (Hardware E)
 1. Place the stud pins in holes in upper handle (head of pins go to the inside of handle). Secure pins with push-on speed nuts by holding speed nut with box wrench and tapping pin with hammer. See figure 8.

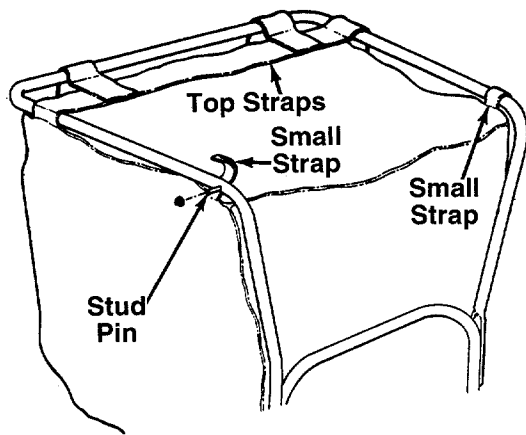


FIGURE 9.

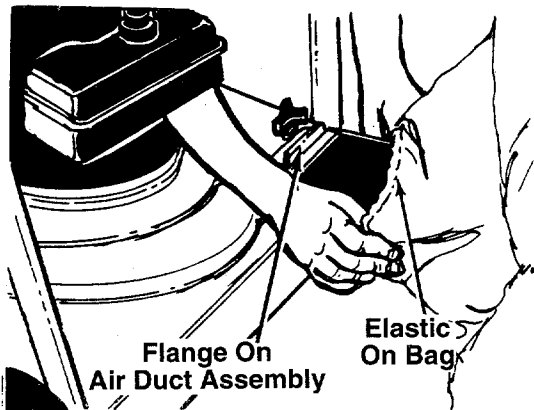


FIGURE 10.

OPERATION

BEFORE STARTING ENGINE

Service engine with gas and oil. See engine manual packed with vacuum for complete instructions for care and maintenance of engine. Read directions carefully.



WARNING: Revolving blades — keep hands away from all openings.

TO START ENGINE

After the engine has been properly fueled and oiled (refer to engine operating and maintenance instructions), start engine as follows.

1. Move throttle control lever on engine to FAST or START position.
2. Crank engine by pulling recoil starter with a quick, firm stroke. Do not pull out so far the rope stops with a jerk. Do not allow rope and handle to snap back into place.
3. After two or three full firm pulls on recoil (or as soon as engine fires), move throttle control to RUN position.

TO STOP ENGINE

1. To stop engine, move throttle control lever to OFF position.
2. Disconnect spark plug wire and ground to prevent accidental starting while equipment is unattended.

TO EMPTY BAG

The bag may be emptied using the large zipper as shown in figure 11. **Be certain the zipper is closed when operating the unit.**



FIGURE 11.

ADJUSTMENTS



WARNING: Do not at any time make any adjustment to the unit without first stopping engine and disconnecting spark plug wire.

HEIGHT ADJUSTMENT

An adjusting plate and thumb lever at both front wheels provide height adjustment for the vacuum. See figure 12. Each adjusting plate has nine positions. Height will be changed when the thumb lever is moved from one position to another. Simply depress thumb lever towards wheel and move wheel and lever assembly to desired position. Both wheels must be placed in the same relative position. Lower the front of the unit to obtain more suction.

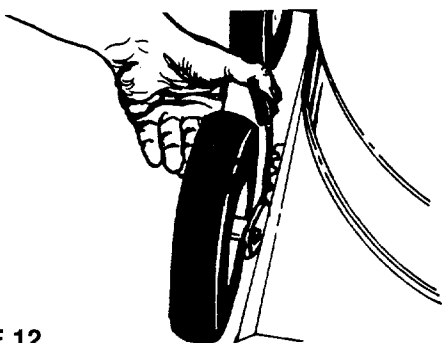


FIGURE 12.

CARBURETOR ADJUSTMENT



WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude or load.

NOTE: A dirty air cleaner will cause engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

Do not make unnecessary adjustments. Factory settings are satisfactory for most applications and conditions. If adjustment is needed, refer to the separate engine manual packed with your vacuum.

MAINTENANCE



WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or performing any repairs or maintenance.

LUBRICATION

Wheels—The wheels require no lubrication. However, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

ENGINE

Refer to the separate engine manual for engine maintenance instructions.

Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all dirt and combustible debris from muffler area.

OFF-SEASON STORAGE

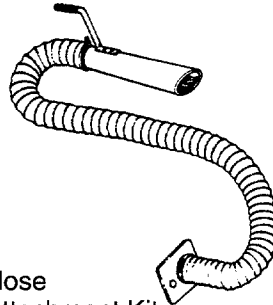
The following steps should be taken to prepare your vacuum for storage.

1. Clean and lubricate the vacuum thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. If storing in an unventilated or metal storage shed, coat metal parts with a light oil or silicone to prevent rust.
4. Store in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

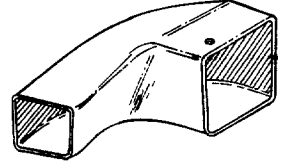
Models 660, 662 and 242665

OPTIONAL EQUIPMENT

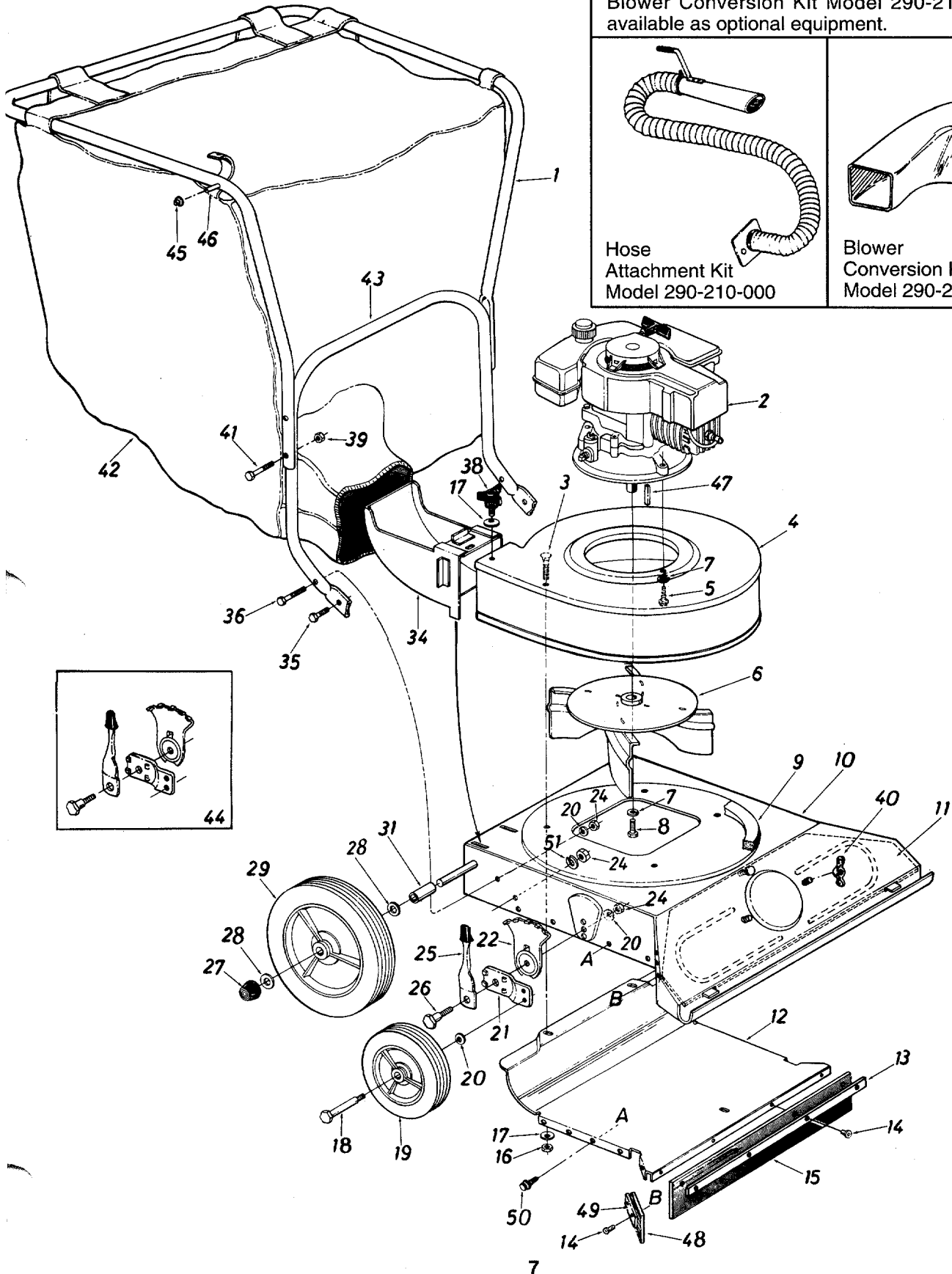
Hose Attachment Kit Model 290-210-000 and Blower Conversion Kit Model 290-211-000 are available as optional equipment.



Hose Attachment Kit
Model 290-210-000



Blower Conversion Kit
Model 290-211-000



PARTS LIST FOR MODELS 660, 662 AND 242665 POWER VACUUMS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	749-0664		Upper Handle	26	738-0507B		Shoulder Bolt .5" Dia. x 7/16" Lg.
2	—		Engine	27	728-0128		Push Cap .5" Rod (Black)
3	710-0260	638	Carriage Bolt 5/16-18 x .62" Lg.*	28	736-0272		Fl-Wash. 1/2" I.D. x 1.0" O.D. x .06"
4	15784		Blower Housing Ass'y.	29	734-1140		Rear Wheel Ass'y. Comp.
5	710-0654A		Hex Tap Scr. 3/8-16 x 1.0" Lg.	31	750-0588		Wheel Spacer 1/2" I.D. x 15/16"
6	15786A		Impeller Ass'y.	34	15779		Air Duct Ass'y.
7	736-0217		L-Wash. 3/8" I.D.*	35	710-0201		Hex Bolt 3/8-16 x .75"
8	710-0591		Hex Bolt 3/8-24 x 1.0" Lg. w/Patch	36	710-0344		Hex Bolt 3/8-16 x 1.5"
9	722-0137		P.V.C. Foam Strip—12"	38	720-0170		Hand Knob
10	15780		638	Vacuum Deck Ass'y.	39	712-0107	
11	15796	Front Baffle Ass'y.		40	712-0113		Wing Nut 1/4-20 (Plastic)
12	15788	Lower Baffle Ass'y.		41	710-0136		Hex Bolt 1/4-20 x 1.75"
13	15790	Wiper Retaining Strip		42	764-0208A		Vacuum Bag (6.6 Bushel)
14	728-0123	Pop Rivet .188" Dia.		43	749-0592		Lower Handle
15	735-0222	Nozzle Wiper Rear		44	14578		Height Adj. Ass'y. Comp.—R.H.
16	712-0267	Hex Nut 5/16-18 Thd.*			14579		Height Adj. Ass'y. Comp.—L.H. (Not Shown)
17	736-0242	Bell-Wash. .34" I.D. x .87" O.D.		45	1539-019		Push Speed Nut .25" Dia.
18	738-0102	Shld. Bolt .498" Dia. x 1.45" Lg.		46	711-0737		Stud Pin .25" Dia. x 1.75" Lg.
19	734-1139	Front Wheel Ass'y. Comp.		47	714-0105		Sq. Key 3/16" x 1" Lg.
20	736-0331	Bell-Wash. .39" I.D. x 1.12" O.D.	48	735-0221		Nozzle Wiper Side	
21	15262B	Wheel Pivot Bar	49	15789		Wiper Retaining Strip	
22	15261A	Index Plate	50	710-0302		Hex Self-Tap Scr. #10	
24	712-0798	Hex Nut 3/8-16 Thd.*	51	736-0169		L-Wash. 3/8" I.D.*	
25	14832		Spring Lever Ass'y. w/knob				

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(638—Red) (498—Yellow)

CODE: N notates a new part (not previously existing). A three digit number is the **color code**. Specify color code if color or finish is important when ordering parts. [i.e., (part no.)-638 for Red Finish].

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Engine fails to start	<ol style="list-style-type: none"> 1. Fuel tank empty, or stale fuel. 2. Spark plug wire disconnected. 3. Faulty spark plug. 	<ol style="list-style-type: none"> 1. Fill tank with clean, fresh fuel. 2. Connect wire to spark plug. 3. Clean, adjust gap or replace.
Loss of power; operation erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Blocked fuel line (if so equipped) or stale fuel. 3. Water or dirt in fuel system. 4. Carburetor out of adjustment. 5. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Clean fuel line; fill tank with clean fresh gasoline. 3. Disconnect fuel line at carburetor to drain fuel tank. Refill with fresh fuel. 4. Adjust carburetor.† 5. Service air cleaner.†
Engine overheats	<ol style="list-style-type: none"> 1. Carburetor not adjusted properly. 2. Engine oil level low. 	<ol style="list-style-type: none"> 1. Adjust carburetor.† 2. Fill crankcase with proper oil.
Too much vibration	Loose parts or damaged crankshaft.	Stop engine immediately and disconnect spark plug wire. Tighten all bolts and nuts. Make all necessary repairs. If vibration continues, have unit serviced by an authorized service dealer.
Unit does not discharge	<ol style="list-style-type: none"> 1. Directional discharge clogged. 2. Foreign object lodged in air vane plate assembly. 	<ol style="list-style-type: none"> 1. Stop engine immediately and disconnect spark plug wire. Clean directional discharge. 2. Stop engine immediately and disconnect spark plug wire. Remove lodged object.

†Refer to the engine manual packed with your unit.

NOTE: For repairs beyond the minor adjustments listed above, please contact your nearest authorized service dealer.

**FOR REPLACEMENT PARTS, CONTACT:
SERVICE DEPARTMENT • P.O. BOX 360900 • CLEVELAND, OHIO 44136**